

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A cast-iron insert ~~(10)~~ around which another metal is to be cast, comprising:

a surface ~~(16)~~ for contact with a molten mass of said other metal to be cast around the cast-iron insert (10); and

a plurality of protrusions ~~(20)~~ disposed on said surface ~~(16)~~ and having respective substantially conical undercuts ~~(18)~~ which are progressively spread outwardly from said surface ~~(16)~~,

wherein said protrusions ~~(20)~~ have respective flat faces ~~(21)~~ on distal ends thereof, said undercuts ~~(18)~~ have respective spherical contact portions, and said other metal is cast around said spherical contact portions, and

wherein said cast-iron insert ~~(10)~~ comprises a cylinder liner ~~(10)~~.

2. (Canceled)

3. (Canceled)

4. (Currently Amended) A method of manufacturing a cast-iron insert, comprising the steps of:

coating an inner surface of a mold ~~(30)~~ with a facing material ~~(36)~~ containing a thermally insulating material, a binder, a parting agent, a surface active agent, and water;

replacing an existing atmosphere in said mold ~~(30)~~ with an inactive gas atmosphere; and

rotating said mold (30) which has been coated with said facing material (36) and simultaneously pouring molten cast iron (40) into said mold (30), to produce a cast-iron insert (10) having a surface (16) for contact with a molten mass of another metal to be cast around the cast-iron insert (10), and a plurality of protrusions (20) disposed on said surface (16) and having respective substantially conical undercuts (18) which are progressively spread outwardly from said surface (16),

wherein said protrusions (20) have respective flat faces (21) on distal ends thereof, said undercuts (18) have respective spherical contact portions, and said other metal is cast around said spherical contact portions, and

wherein said facing material (36) contains 20 weight % to 35 weight % of diatomaceous earth as said thermally insulating material, 1 weight % to 7 weight % of bentonite as said binder, 1 weight % to 5 weight % of said parting agent, 5 ppm to 50 ppm of said surface active agent, and the remainder of water.

5. (Canceled)

6. (Canceled)

7. (Currently Amended) A method according to claim 4, wherein said mold (30) is rotated at a mold G No. ranging from 25G to 35G when the inner surface of the mold (30) is coated with the facing material (36).